# The Trail Inventory of DeSoto NWR

Missouri Valley, IA





Prepared By: Federal Highway Administration Central Federal Lands Highway Division January, 2012



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## **DeSoto NWR**

## **Trail and Trail Feature Summaries**

Trail Miles and Percentages by Surface Type and Condition

| Trail Surface | Excel | lent | Total |  |
|---------------|-------|------|-------|--|
| Туре          | Miles | %    | Miles |  |
| Native        | 0.75  | 100% | 0.75  |  |
| Gravel        | 1.79  | 100% | 1.79  |  |
| Asphalt       | 0.07  | 100% | 0.07  |  |
| Concrete      | 0.16  | 100% | 0.16  |  |
| Boardwalk     | 0.08  | 100% | 0.08  |  |
| Mowed         | 0.79  | 100% | 0.79  |  |
| Total         | 3.64  | 100% | 3.64  |  |

Trail Miles and Percentages by Trail Classification and Condition

| Trail          | Excel | lent | Total |  |
|----------------|-------|------|-------|--|
| Classification | Miles | %    | Miles |  |
| тсз            | 2.62  | 100% | 2.62  |  |
| TC4            | 0.79  | 100% | 0.79  |  |
| TC5            | 0.23  | 100% | 0.23  |  |
| Total          | 3.64  | 100% | 3.64  |  |

<sup>\*</sup>Admin Roads are included in the inventory but are not rated for condition.

## **Trail Features**

| Trail<br>Number | Feature Type  | Quantity | Grouped<br>Feature | Milepost | Photo            |
|-----------------|---------------|----------|--------------------|----------|------------------|
| T300            | Sign          | 2        | No                 | 0.00     | DESO_C2_07<br>84 |
| T300            | Sign          | 1        | No                 | 0.00     | DESO_C2_07<br>86 |
| T300            | Trailhead     | 1        | No                 | 0.00     | DESO_C2_07<br>85 |
| T300            | Bench         | 1        | No                 | 0.07     |                  |
| T300            | Bench         | 1        | No                 | 0.17     |                  |
| T300            | Bench         | 1        | No                 | 0.31     |                  |
| T300            | Culvert -lf   | 20       | No                 | 0.46     |                  |
| T300            | Bench         | 1        | No                 | 0.59     |                  |
| T300            | Boardwalk -If | 100      | No                 | 0.71     | DESO_C2_07<br>87 |
| T301            | Sign          | 1        | No                 | 0.00     | DESO_C2_07<br>88 |
| T301            | Trailhead     | 1        | No                 | 0.00     | DESO_C2_07<br>89 |
| T301            | Sign          | 1        | No                 | 0.00     | DESO_C2_07<br>88 |
| T301            | Bench         | 1        | No                 | 0.58     |                  |
| T301            | Intersection  | 1        | No                 | 0.73     |                  |
| T302            | Trailhead     | 1        | No                 | 0.00     | DESO_C2_07<br>91 |
| T302            | Sign          | 2        | No                 | 0.00     | DESO_C2_07<br>92 |
| T302            | Gate          | 1        | No                 | 0.00     |                  |
| T302            | Sign          | 1        | No                 | 0.00     | DESO_C2_07       |
| T302            | Sign          | 1        | No                 | 0.03     | DESO_C2_07<br>94 |
| T302            | Sign          | 10       | Yes                | 0.03     | DESO_C2_07<br>93 |
| T302            | Bench         | 1        | No                 | 0.03     |                  |
| T302            | Sign          | 1        | No                 | 0.05     | DESO_C2_07<br>95 |
| T302            | Bench         | 2        | No                 | 0.26     |                  |
| T302            | Other         | 1        | No                 | 0.66     |                  |
| T302            | Bench         | 1        | No                 | 0.72     |                  |
| T400            | Bridge -sf    | 252      | No                 | 0.00     | DESO_C2_07<br>80 |
| T400            | Trailhead     | 1        | No                 | 0.00     | DESO_C2_07<br>80 |
| T400            | Intersection  | 1        | No                 | 0.00     |                  |

| T400 | Sign            | 1  | No | 0.01 | DESO_C2_07<br>81 |
|------|-----------------|----|----|------|------------------|
| T400 | Sign            | 1  | No | 0.07 | DESO_C2_07<br>83 |
| T400 | Bench           | 1  | No | 0.24 |                  |
| T400 | Bench           | 1  | No | 0.44 |                  |
| T400 | Bench           | 1  | No | 0.66 |                  |
| T400 | Bench           | 1  | No | 0.79 |                  |
| T500 | Bench           | 1  | No | 0.00 |                  |
| T500 | Trailhead       | 1  | No | 0.00 | DESO_C2_07<br>76 |
| T500 | Sign            | 2  | No | 0.00 | DESO_C2_07<br>77 |
| T500 | Lookout/Ob Deck | 1  | No | 0.08 |                  |
| T500 | Sign            | 1  | No | 0.08 | DESO_C2_07<br>79 |
| T500 | Lookout/Ob Deck | 1  | No | 0.11 |                  |
| T500 | Max Grade- %    | 15 | No | 0.12 |                  |
| T501 | Sign            | 1  | No | 0.00 | DESO_C2_07<br>97 |
| T501 | Trailhead       | 1  | No | 0.00 | DESO_C2_07<br>96 |
| T501 | Lookout/Ob Deck | 1  | No | 0.06 |                  |
| T501 | Begin Section   | 1  | No | 0.07 | DESO_C2_08<br>00 |
| T501 | Sign            | 2  | No | 0.07 | DESO_C2_07<br>99 |
| T501 | Bench           | 2  | No | 0.07 |                  |
| T501 | Lookout/Ob Deck | 1  | No | 0.30 |                  |
| T501 | Begin Section   | 1  | No | 0.31 | DESO_C2_08<br>01 |
| T501 | Begin Section   | 1  | No | 0.39 | DESO_C2_08<br>03 |

sf - square feet

If - linear feet

cf - cubic feet

## DeSoto NWR Trail Location Map



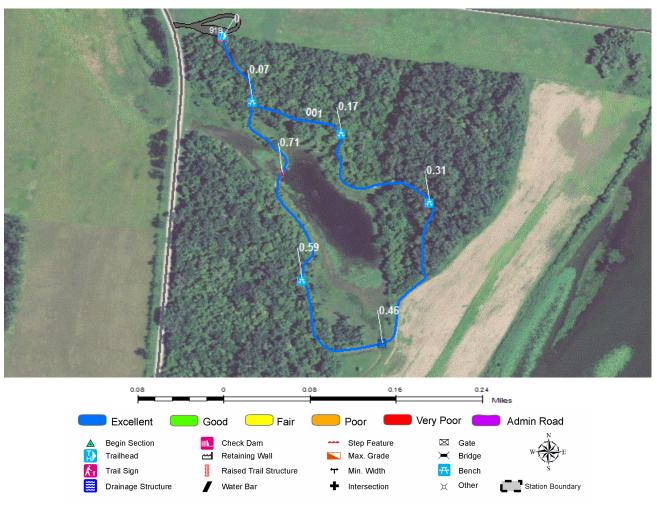




## Trails ID

Station Name: DeSoto NWR Org Code: 33510

| Trail<br>Number | Trail Name                               | Surface Type | SAMMS    | Trail<br>Mileage | Trail Description<br>(Begin and End point of trail)                                  |
|-----------------|--|--------------|----------|------------------|--|
| T300            | Wood Duck Trail                          | Mowed        | 10012849 | 0.79             | From Woodduck Nature Trail Parking<br>Area (Rte 919) to end of trail                 |
| T301            | Grassland Nature Trail                   | Gravel       | 10012866 | 0.73             | From Cottonwood Nature Trail Parking<br>Area (Rte 906) to Cottonwood Nature<br>Trail |
| T302            | Cottonwood Nature Trail                  | Native       | 10012829 | 0.75             | From Cottonwood Nature Trail Parking<br>Area (Rte 906) to Grassland Nature Trail     |
| T400            | Missouri Meander Foot Trail              | Gravel       | N/A      | 0.79             | From Missouri Meander Trail w/viewing area (T500) to end of trail loop               |
| T500            | Missouri Meander Trail<br>w/viewing area | Concrete     | 10012846 | 0.16             | From Visitor Center Parking (Rte 900) to end of trail loop                           |
| T501            | Bertrand Excavation Site Trail           | Asphalt      | 10012870 | 0.07             | From Excavation Site Parking Area #1 (Rte 907) to end of trail loop                  |
| T501            | Bertrand Excavation Site Trail           | Boardwalk    | 10012870 | 0.08             | From Excavation Site Parking Area #1 (Rte 907) to end of trail loop                  |
| T501            | Bertrand Excavation Site Trail           | Gravel       | 10012870 | 0.27             | From Excavation Site Parking Area #1 (Rte 907) to end of trail loop                  |



**Trail Name:** Wood Duck Trail Refuge Name: DeSoto NWR

Trail Number: T300 Region: 3 Total Length: 0.79 Miles

Section Number 001

| Section Number              | 001        |
|-----------------------------|------------|
| Section Length (miles)      | 0.79       |
| SAMMS Number                | 10012849   |
| Rating Date                 | 09/12/2006 |
| Trail Section Information   |            |
| Trail Class                 | TC3        |
| Surface Type                | Mowed      |
| Surface Firmness            | Firm       |
| Width (inches)              | 96         |
| Average Grade (%)           | 4.1        |
| Average X-slope (%)         | 2.40       |
| Trail Condition Information |            |
| Deferred Maintenance        |            |
| CRV                         | \$34,027   |
| FCI                         | 0.00       |
| Condition                   | Excellent  |

#### **Trail Condition TOTALS**

| Deferred<br>Maintenance | CRV      | FCI  | Condition |
|-------------------------|----------|------|-----------|
|                         | \$34,027 | 0.00 | Excellent |



Intersection

Other

Station Boundary

Total Length: 0.73 Miles

×

**Trail Name:** Grassland Nature Trail Refuge Name: DeSoto NWR **Trail Number:** T301 Region: 3

Water Bar

0.00

Excellent

Section Number 001 Section Length (miles) 0.73 10012866 SAMMS Number 09/12/2006 Rating Date Trail Section Information TC3 Trail Class Gravel Surface Type Surface Firmness Hard Width (inches) 72 Average Grade (%) 3.4 Average X-slope (%) 1.50 Trail Condition Information **Deferred Maintenance** \$102,902 CRV

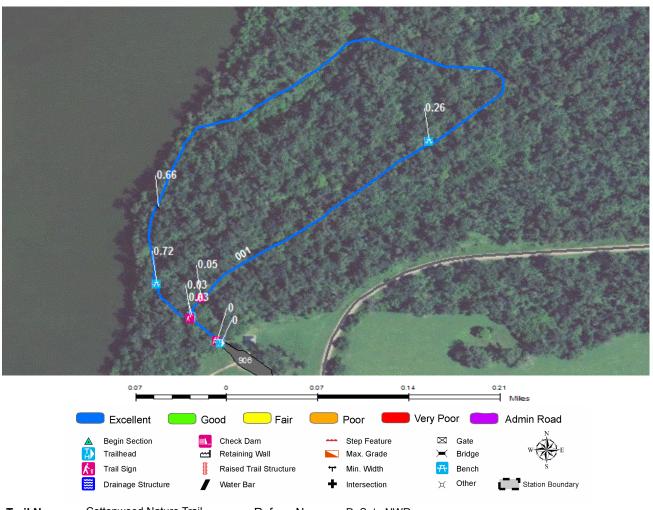
Drainage Structure

#### **Trail Condition TOTALS**

| Deferred<br>Maintenance | CRV       | FCI  | Condition |
|-------------------------|-----------|------|-----------|
|                         | \$102,902 | 0.00 | Excellent |

FCI

Condition



**Trail Name:** Cottonwood Nature Trail Refuge Name: DeSoto NWR **Trail Number:** T302 Region: 3

Section Number 001 Section Length (miles) 0.75 10012829 SAMMS Number 09/12/2006 Rating Date **Trail Section Information** TC3 Trail Class Native Surface Type Surface Firmness Hard Width (inches) 72 Average Grade (%) 3.0 Average X-slope (%) 1.40 Trail Condition Information **Deferred Maintenance** \$96,912 CRV 0.00 FCI Excellent Condition

#### **Trail Condition TOTALS**

| Deferred<br>Maintenance | CRV      | FCI  | Condition |
|-------------------------|----------|------|-----------|
|                         | \$96,912 | 0.00 | Excellent |

Total Length: 0.75 Miles



| <u> </u> | Begin Section      | <b></b> | Check Dam              |   | Step Feature | $\boxtimes$  | Gate   | Z D              |
|----------|--------------------|---------|------------------------|---|--------------|--------------|--------|------------------|
| T)       | Trailhead          |         | Retaining Wall         |   | Max. Grade   | $\succ$      | Bridge | W E              |
| Ŕτ       | Trail Sign         | 1       | Raised Trail Structure | ₩ | Min. Width   | <del>7</del> | Bench  | Š                |
|          | Drainage Structure |         | Water Bar              | + | Intersection | ×            | Other  | Station Boundary |
|          |                    |         |                        |   |              |              |        |                  |

**Trail Name:** Missouri Meander Foot Trail Refuge Name: DeSoto NWR

**Trail Number:** T400 Region: 3 Total Length: **0.79 Miles** 

| Section Number              | 001        |
|-----------------------------|------------|
| Section Length (miles)      | 0.79       |
| SAMMS Number                | N/A        |
| Rating Date                 | 09/11/2006 |
| Trail Section Information   |            |
| Trail Class                 | TC4        |
| Surface Type                | Gravel     |
| Surface Firmness            | Hard       |
| Width (inches)              | 60         |
| Average Grade (%)           | 2.5        |
| Average X-slope (%)         | 2.20       |
| Trail Condition Information |            |
| Deferred Maintenance        |            |
| CRV                         | \$92,801   |
| FCI                         | 0.00       |
| Condition                   | Excellent  |

## **Trail Condition TOTALS**

| Deferred<br>Maintenance | CRV      | FCI  | Condition |
|-------------------------|----------|------|-----------|
|                         | \$92,801 | 0.00 | Excellent |



Trail Name: Missouri Meander Trail w/viewing € Refuge Name: DeSoto NWR

**Trail Number:** T500 Region: 3 Total Length: **0.16 Miles** 

| Section Number              | 001        |
|-----------------------------|------------|
| Section Length (miles)      | 0.16       |
| SAMMS Number                | 10012846   |
| Rating Date                 | 09/11/2006 |
| Trail Section Information   |            |
| Trail Class                 | TC5        |
| Surface Type                | Concrete   |
| Surface Firmness            | Paved      |
| Width (inches)              | 78         |
| Average Grade (%)           | 4.1        |
| Average X-slope (%)         | 1.30       |
| Trail Condition Information |            |
| Deferred Maintenance        | \$329      |
| CRV                         | \$35,066   |
| FCI                         | 0.01       |
| Condition                   | Excellent  |

## **Trail Condition TOTALS**

| Deferred<br>Maintenance | CRV      | FCI  | Condition |
|-------------------------|----------|------|-----------|
| \$329                   | \$35,066 | 0.01 | Excellent |



**Trail Name:** Bertrand Excavation Site Trail Refuge Name: DeSoto NWR **Trail Number:** T501 Region: 3

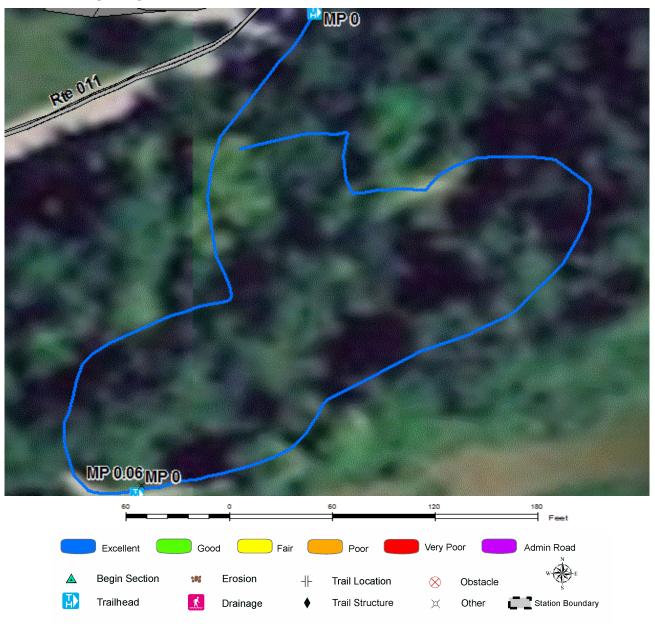
004 Section Number 001 002 003 Section Length (miles) 0.07 0.24 0.08 0.03 10012870 10012870 10012870 10012870 SAMMS Number 09/12/2006 09/12/2006 09/12/2006 09/12/2006 Rating Date Trail Section Information TC5 TC3 TC3 TC3 Trail Class Asphalt Gravel Boardwalk Gravel Surface Type Surface Firmness Paved Hard Paved Hard Width (inches) 72 60 72 60 Average Grade (%) 2.8 2.8 2.8 2.8 Average X-slope (%) 3.30 3.30 3.30 3.30 **Trail Condition Information** \$208 **Deferred Maintenance** \$184 **CRV** \$12,656 \$28,193 \$55,881 \$3,524 0.01 0.00 0.00 0.00 FCI Excellent Excellent Excellent Excellent Condition

#### **Trail Condition TOTALS**

| Deferred<br>Maintenance | CRV       | FCI  | Condition |
|-------------------------|-----------|------|-----------|
| \$392                   | \$100,254 | 0.00 | Excellent |

Total Length: 0.42 Miles

## TRAIL DEFICIENCY



Trail Name: Missouri Meander Trail w/viewing & Refuge Name: DeSoto NWR

Trail Number: T500 Region: 3 Total Length: 0.16 Miles

| Mile Post            | 0.06         |
|----------------------|--------------|
| Section Number       | 001          |
| Photo Number         | DESO_C2_0778 |
| Deficiency           | Other        |
| Action               | Repair       |
| Item                 | Tread -sf    |
| Quantity             | 90           |
| Deferred Maintenance | \$329        |

## TRAIL DEFICIENCY



| Trail Name:   | Bertrand Excavation Site Trail | Refuge Name: | DeSoto NWR |
|---------------|--------------------------------|--------------|------------|
| Trail Number: | T501                           | Region:      | 3          |

| Mile Post            | 0.00         | 0.39            |
|----------------------|--------------|-----------------|
| Section Number       | 001          | 003             |
| Photo Number         | DESO_C2_0798 | DESO_C2_0802    |
| Deficiency           | Erosion      | Trail Structure |
| Action               | Repair       | Repair          |
| Item                 | Tread -sf    | Boardwalk -If   |
| Quantity             | 50           | 10              |
| Deferred Maintenance | \$184        | \$208           |

Total Length: 0.42 Miles

TRAIL NUMBER: T300 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0785 - MP 0.00 - Trailhead

TRAIL NUMBER: T300 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0784 - MP 0.00 - Sign

TRAIL NUMBER: T300 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0786 - MP 0.00 - Sign

TRAIL NUMBER: T300 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0787 - MP 0.71 - Boardwalk -If

TRAIL NUMBER: T301 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0789 - MP 0.00 - Trailhead

TRAIL NUMBER: T301 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0788 - MP 0.00 - Sign

TRAIL NUMBER: T301 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0788 - MP 0.00 - Sign

TRAIL NUMBER: T302 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0791 - MP 0.00 - Trailhead

TRAIL NUMBER: T302 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0790 - MP 0.00 - Sign

TRAIL NUMBER: T302 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0792 - MP 0.00 - Sign

TRAIL NUMBER: T302 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0793 - MP 0.03 - Sign

TRAIL NUMBER: T302 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0794 - MP 0.03 - Sign

TRAIL NUMBER: T302 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0795 - MP 0.05 - Sign

TRAIL NUMBER: T400 STATION: DeSoto NWR DATE: 09/11/2006



Photo # DESO\_C2\_0780 - MP 0.00 - Trailhead

TRAIL NUMBER: T400 STATION: DeSoto NWR DATE: 09/11/2006



Photo # DESO\_C2\_0780 - MP 0.00 - Bridge -sf

TRAIL NUMBER: T400 STATION: DeSoto NWR DATE: 09/11/2006



Photo # DESO\_C2\_0781 - MP 0.01 - Sign

TRAIL NUMBER: T400 STATION: DeSoto NWR DATE: 09/11/2006



Photo # DESO\_C2\_0783 - MP 0.07 - Sign

TRAIL NUMBER: T500 STATION: DeSoto NWR DATE: 09/11/2006



Photo # DESO\_C2\_0776 - MP 0.00 - Trailhead

TRAIL NUMBER: T500 STATION: DeSoto NWR DATE: 09/11/2006

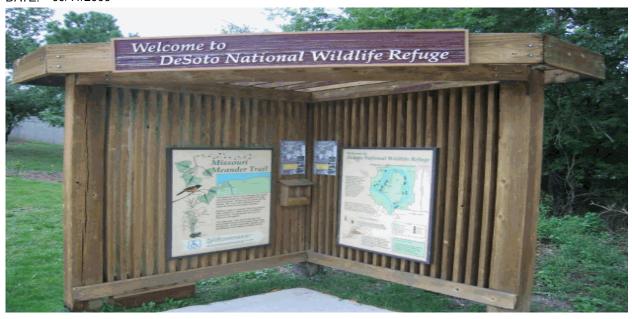


Photo # DESO\_C2\_0777 - MP 0.00 - Sign

TRAIL NUMBER: T500 STATION: DeSoto NWR DATE: 09/11/2006



Photo # DESO\_C2\_0779 - MP 0.08 - Sign

TRAIL NUMBER: T501 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0796 - MP 0.00 - Trailhead

TRAIL NUMBER: T501 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0797 - MP 0.00 - Sign

TRAIL NUMBER: T501 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0799 - MP 0.07 - Sign

TRAIL NUMBER: T501 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0800 - MP 0.07 - Begin Section

TRAIL NUMBER: T501 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0801 - MP 0.31 - Begin Section

TRAIL NUMBER: T501 STATION: DeSoto NWR DATE: 09/12/2006



Photo # DESO\_C2\_0803 - MP 0.39 - Begin Section

## **Glossary of Terms and Abbreviations**

Acc Info Accessibility information available at trailhead.

**Action** Action required to correct deficiency.

Admin Road Administration Road. Admin Roads signed and

advertised as trails are included in the trail inventory but

a condition assessment is NOT done.

**Alt SAMMS** SAMMS number of Alternate Facility Type.

Alt Type Alternate Facility Type. Trail lies on a feature such as a

levee, dam, administrative road or bridge, which has a

separate SAMMS number.

**AvgGrade** The average grade of the trail (%). The average of five

measurements for trails less than two miles and ten measurements for trails equal to or greater than 2 miles.

**AvgSlope** The average cross-slope of the trail (%). The average of

five measurements for trails less than two miles and ten measurements for trails equal to or greater than 2 miles.

**Check Dam** A small dam constructed across a drainage ditch, swale,

or channel to lower the speed of concentrated flows.

**Condition** Subjective rating of trail based on Facility Condition

Index (FCI):

FCI </= - .01 = Excellent FCI .02 - .05 = Good FCI .06 - .10 = Fair FCI .11 - .20 = Poor FCI > - .20 = Failed

**Crib Wall** Retaining wall.

Current

Replacement Value

(CRV)

The value of an asset determined by the estimated cost of

replacing it.

**Def type** Deficiency Type: Trail Structure, Drainage, Erosion,

Obstacle, Trail Location, Other.

Deferred

**Maintenance (DM)** 

Maintenance that was not performed when scheduled.

i

**Elem ID** Unique identifier for each trail section: Org Code-Trail

Number-Section Number.

**Facility** 

**Condition Index (FCI)** 

DM/CRV

**Grouped Features** Grouped features include non-unique signs (mileposts,

interpretive signs, species identification, etc.), water bars, check dams, steps, drain and drainage dips. For any given grouped feature, a GPS point and photo are taken for the first occurrence only and the total number of features in the group are entered into the "quantity"

field of the data dictionary.

**Info Type** Type of accessibility information available at trailhead:

brochure, sign or other.

**Item** Item on which the "Action" (see above) will be

performed.

Manage\_Use Managed use of the trail: HIKE, BIKE, NSPC (non-

specified), PACK, POR (portage), SNOWSHOE, XSKI

(cross-country ski), OTHER.

**MP** Distance of a trail feature or deficiency from the

Trailhead.

**Puncheon** Log footbridge used in area of poor drainage.

Raised Trail Structure Boardwalk, Turnpike, Puncheon.

**T Class** Trail Class: I-V (see Appendix? for trail class

descriptions).

**Tr Desig** Trail Designation: Standard (Std), National Historic Trail

(NHT), National Recreation Trail (NRT), National

Scenic Trail (NST).

**Turnpike** Trail tread elevated with dirt, rock or other aggregate

from parallel side ditches and held in place by logs.